

IN THE CLAIMS:

Please AMEND claims 22-34 and 36-43, as shown below.

1-21 (Canceled)

22. (Currently Amended) ~~A power control device~~An apparatus, comprising:

a ~~calibration unit~~calibrator configured to calibrate the transmission or receiving power of a transmitter or receiver in a mobile communication network, the ~~calibration unit~~calibrator including a summer connected to an antenna array of the transmitted or receiver, wherein the summer is configured to sum transmission or reception signals, and a common ~~calibrating device~~calibrator configured to calibrate the summed signals, wherein the apparatus is configured to transmit or receive burst signals for the antenna array and the burst signals include a training sequence; and

a power control loop configured to control the output power of the power amplifier, the power control loop containing a detector configured to detect the output of the power amplifier, and a controller configured to control the detector so as to detect the output of the power amplifier only during a time of output of ~~a~~the training sequence using a time-window to activate the detector only during the training sequence and to stop the detection function of the detector during the other times, wherein the ~~device~~apparatus is configured to control the power based on the detected output power; and

a power detection section configured to issue a control signal which is applied to a control input of the detector, wherein the power detection section is configured to

generate the control signal with a timing so as to operate the detector only when the power amplifier outputs the training sequence, wherein the power detection section is configured to generate the control signal by providing a time delay between start of a burst signal and start of the control signal sufficient so as to open the detection function of the detector only when the first bits of the training sequence are occurring at the input of the detector, and to close the time window for detecting the power amplifier output signal at or before the occurrence of the last bits of the training sequence, and

~~wherein the device is configured to transmit or receive burst signals for the antenna array and the burst signals include the training sequence.~~

23. (Currently Amended) The ~~device~~ apparatus according to claim 22, wherein the controller is configured to issue a control signal that is applied to a control input of the detector, and the controller is configured to generate the control signal with a timing so as to operate the detector only when the power amplifier outputs the fixed training sequence.

24. (Currently Amended) The ~~device~~ apparatus according to claim 22, further comprising:

a transmission branch; ~~and~~

a reception branch; ~~and~~

a first switch configured to switch the connection of the summer either to the transmission branch or to the reception branch.

25. (Currently Amended) The ~~device~~-apparatus according to claim 24, further comprising:

a second switch configured to switch the connection of the transmission branch either to the summer or first switch, or to a reference coupler configured to supply a reference signal to the transmission branch.

26. (Currently Amended) The ~~device~~-apparatus according to claim 24, further comprising:

a further switch provided in the transmission branch configured to temporarily blank the transmission branch.

27. (Currently Amended) The ~~device~~-apparatus according to claim 22, wherein the ~~device~~-apparatus is configured to measure, for transmit calibration, idle timeslots with only one column active.

28. (Currently Amended) The ~~device~~-apparatus according to claim 22, wherein, when, for receive calibration, a dummy burst is generated and modulated onto a carrier, the ~~device~~-apparatus is configured to receive the dummy burst in each branch of a transmitter, to measure the amplitude and phase differences between each path are measured, and to use the result of such measurement as a new receive calibration offset.

29. (Currently Amended) The ~~device~~-apparatus according to claim 22, further comprising a chipset of a mobile terminal which is used for calibration in conjunction with the ~~calibration unit~~calibrator.

30. (Currently Amended) The ~~device~~-apparatus according to claim 22, further comprising:

a passive coupling network in the antenna array and a calibration board that works at radio frequencies in conjunction with the ~~calibration unit~~calibrator.

31. (Currently Amended) The ~~device~~-apparatus according to claim 22, further comprising:

an open loop static power control configured to control the output power of the power amplifier, wherein the open loop static power control comprises a controllable attenuator arranged upstream of the input side of the power amplifier, the controllable attenuator configured to be controlled by the controller.

32. (Currently Amended) The ~~device~~-apparatus according to claim 22, wherein the ~~device~~-apparatus is configured to set the output power based on information measured in a previous timeslot and to avoid making power corrections during a measured timeslot.

33. (Currently Amended) The ~~device~~-apparatus according to claim 22, wherein the ~~device~~-apparatus is comprised in a smart antenna structure comprising several

antennas, including a power amplifier in each antenna path, a common attenuator, and a splitter arranged between the common attenuator and the antenna paths, each power amplifier including an embodiment of the power control loop.

34. (Currently Amended) A ~~power control~~ method, comprising:

calibrating the power of a transmitter or receiver in a mobile communication network comprising an antenna array;

transmitting burst signals to, or receiving by, the antenna array, wherein the burst signals comprise a fixed training sequence, and the transmitter or receiver comprising a power amplifier;

calibrating the transmission or receiving power of the transmitter or receiver, wherein the calibrating comprises summing transmission or reception signals of the antenna array, and commonly calibrating the summed signals; and

controlling the output power of the power amplifier by a power control loop, wherein controlling includes detecting the output of the power amplifier in a controlled manner so as to detect the output of the power amplifier only during the time of output of the training sequence using a time-window to activate the detector only during the training sequence and to stop the detection function of the detector during the other times, and controlling the power based on the detected output power;

issuing a control signal which is applied to a control input of the detector, wherein the issuing comprises generating the control signal with a timing so as to operate the detector only when the power amplifier outputs the training sequence, wherein the timing

is configured to provide a time delay between start of a burst signal and start of the control signal sufficient so as to open the detection function of the detector only when the first bits of the training sequence are occurring at the input of the detector, and to close the time window for detecting the power amplifier output signal at or before the occurrence of the last bits of the training sequence.

35. (Previously Presented) The method according to claim 34, wherein the controlling comprises issuing a control signal that controls the detecting, and generating the control signal with a timing so as to detect only when the power amplifier outputs the fixed training sequence.

36. (Currently Amended) The method according to claim 34, further comprising:
a first switching a connection of a summer for performing the summing either to a transmission branch or to a reception branch.

37. (Currently Amended) The method according to claim 36, further comprising:
a second switching the connection of the transmission branch either to the summer or to a first switch for performing the first switching, or to a reference coupler for supplying a reference signal to the transmission branch.

38. (Currently Amended) The method according to claim 36, further comprising:
temporarily blanking the transmission branch.

39. (Currently Amended) The method according to claim 34, further comprising:
measuring idle timeslots for transmit calibration with only one column active.

40. (Currently Amended) The method according to claim 34, further comprising,
for receive calibration;

generating a dummy burst;

modulating the dummy burst onto a carrier;

receiving the dummy burst in each branch of a transmitter;

measuring the amplitude and phase differences between each path; and

using the result of the measuring as a new receive calibration offset.

41. (Currently Amended) The method according to claim 34, further comprising:
setting the output power based on information measured in a previous timeslot,
and abstaining from making power corrections during a measured timeslot.

42. (Currently Amended) The method according to claim 34, further comprising:
performing the method in a smart antenna structure comprising several antennas,
including a power amplifier in each antenna path, a common attenuator, and a splitter
arranged between the common attenuator and the antenna paths, each power amplifier
including a power control loop.

43. (Currently Amended) ~~A power control device~~An apparatus, comprising:

calibration means ~~configured to calibrate~~for calibrating the transmission or receiving power of a transmitter or receiver in a mobile communication network, the calibration means including a summing means, connected to an antenna array of the transmitter or receiver, for summing transmission or reception signals, and a common calibrating means for calibrating the summed signals, wherein the apparatus is configured to transmit or receive burst signals for the antenna array and the burst signals include a training sequence; and

power control loop means for controlling the output power of the power amplifier, the power control loop containing a detector means for detecting the output of the power amplifier, and a control means for controlling the detector means so as to detect the output of the power amplifier only during a time of output of ~~a~~the training sequence using a time-window means for activating the detector means only during the training sequence and for stopping the detection function of the detector means during the other times, wherein the ~~device~~apparatus is configured to control the power based on the detected output power; and

power detection means for issuing a control signal which is applied to a control input of the detector means, wherein the issuing comprises generating the control signal with a timing so as to operate the detector only when the power amplifier outputs the training sequence, wherein the timing is configured to provide a time delay between start of a burst signal and start of the control signal sufficient so as to open the detection function of the detector only when the first bits of the training sequence are occurring at

the input of the detector, and to close the time window for detecting the power amplifier output signal at or before the occurrence of the last bits of the training sequence, and

~~wherein the device is configured to transmit or receive burst signals for the antenna array and the burst signals include the training sequence.~~